HoneySoft Limited

HS-RX1 Expansion ROM

USER GUIDE

1. Setting Up

The procedure for connecting a peripheral to your computer is quite simple:

1) Ensure that the computer is switched off — you should NEVER connect or disconnect a peripheral when the power is on.

2) Take the card with the edge connector facing away from you and with the components on the top side; the cable should pass over the top of the components towards you.

3) Locate the card behind the expansion port of the computer, still with the edge connector away from you. The connector on the end of the cable may now be plugged into the expansion port. The final arrangement is illustrated on the following page.

4) You will notice that one side of the cable is coloured red — this should be on the left hand side of the computer; if it isn't then unplug and try again.

5) Switch on the computer and you're ready to go.

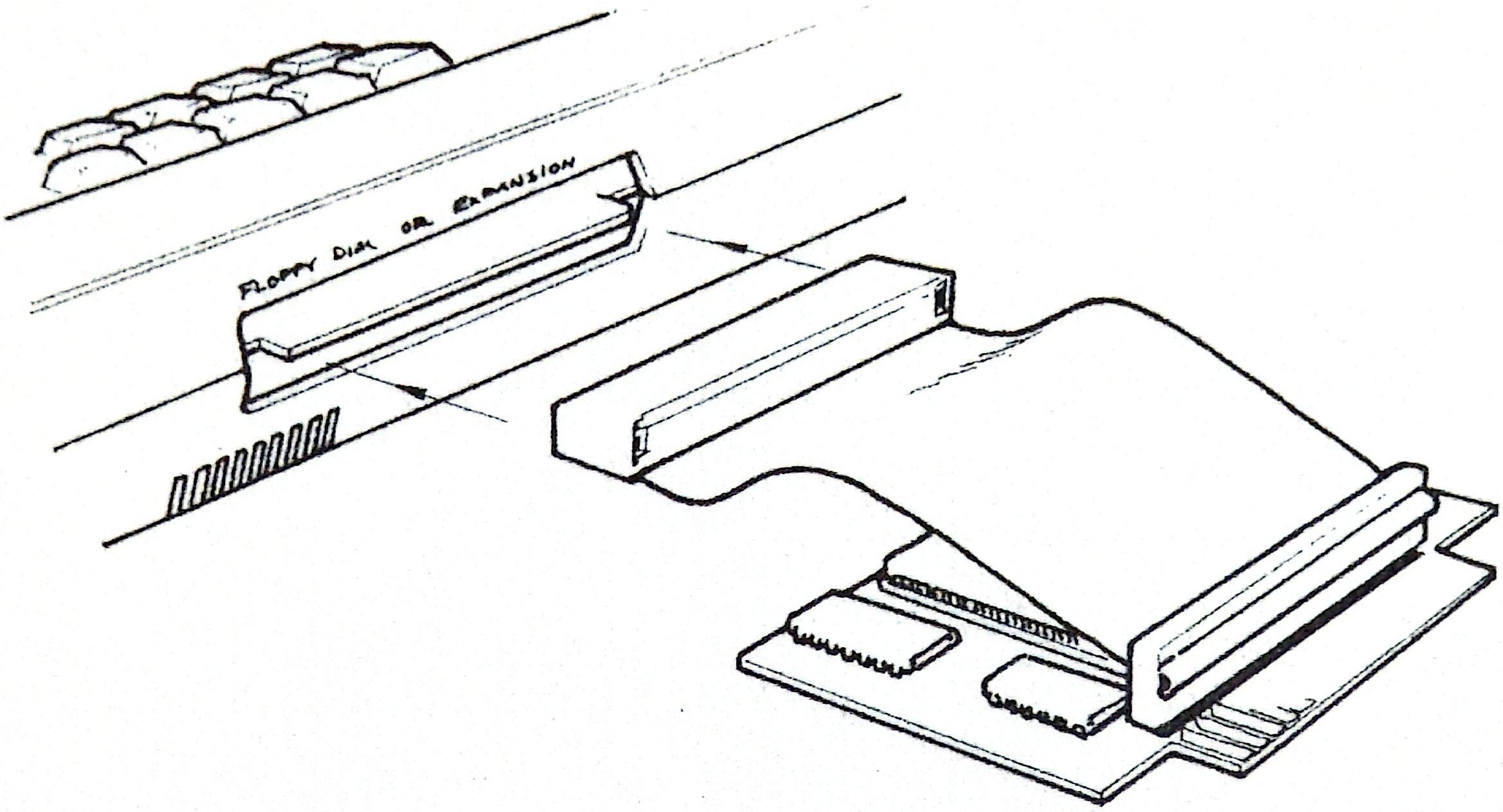
1.1. Precautions

There are a few simple precautions that you must observe to ensure that you get a long life and good service from your HoneySoft peripheral.

Firstly, you will notice that because the unit is supplied without a case, the underside of the board is exposed.. There is a danger, therefore, that a short circuit may occur if the board is placed on a metal surface, so do not use it on a metal table or tray. If it is unavoidable, then make sure that the board is insulated from the surface with a sheet of plastic or cardboard.

Secondly, as already pointed out, the card should never be plugged in or unplugged while the computer is switched on otherwise the board may be damaged.

Finally, the peripheral will last a lot longer if it is kept away from any late night cups of hot chocolate (or any other liquid).



1-1: Connecting your Peripheral to an AMSTRAD Computer

1.2. Use with the ARNOR AD1 board

The HoneySoft expansion peripherals have been designed to be compatible with the ARNOR AD1 expansion ROM board, that ARNOR use to supply their ROM based software in. To use a HoneySoft peripheral in conjunction with the AD1, it is possible (although not essential) to plug the HoneySoft card into the socket on the top of the AD1, thereby doing away with the need to use the ribbon cable.

The cable should be removed very carefully from your HoneySoft board, by using a screwdriver or similar blunt instrument to lever it off the connector; if care is not taken there is a danger that the pins of the connector may become bent.

Once the ribbon cable has been removed the card may be inserted into the socket on the AD1 with the components facing AWAY from the computer (i.e. towards the monitor).

Additional HoneySoft peripherals may be connected by replacing the cable on the card that is inserted in the AD1, and plugging the new board into the edge connector. In this case the cable must have the red side towards the left on the new board, when it is held component side up with the edge connector away from you.

1.3. Using the Bus Extender Card

Owners of a CPC464 with a disc drive are recommended to use our Bus Extender Board (HS-TB1) in conjunction with our peripherals. This is necessary because the disc drive is very temperamental about the signals that it sees and will not, in our experience, operate reliably even down a short length of cable.

The Bus Extender Card provides a T-Junction for the expansion bus, allowing both our peripherals and a disc drive or other peripheral to be plugged directly into the expansion bus of the CPC464.

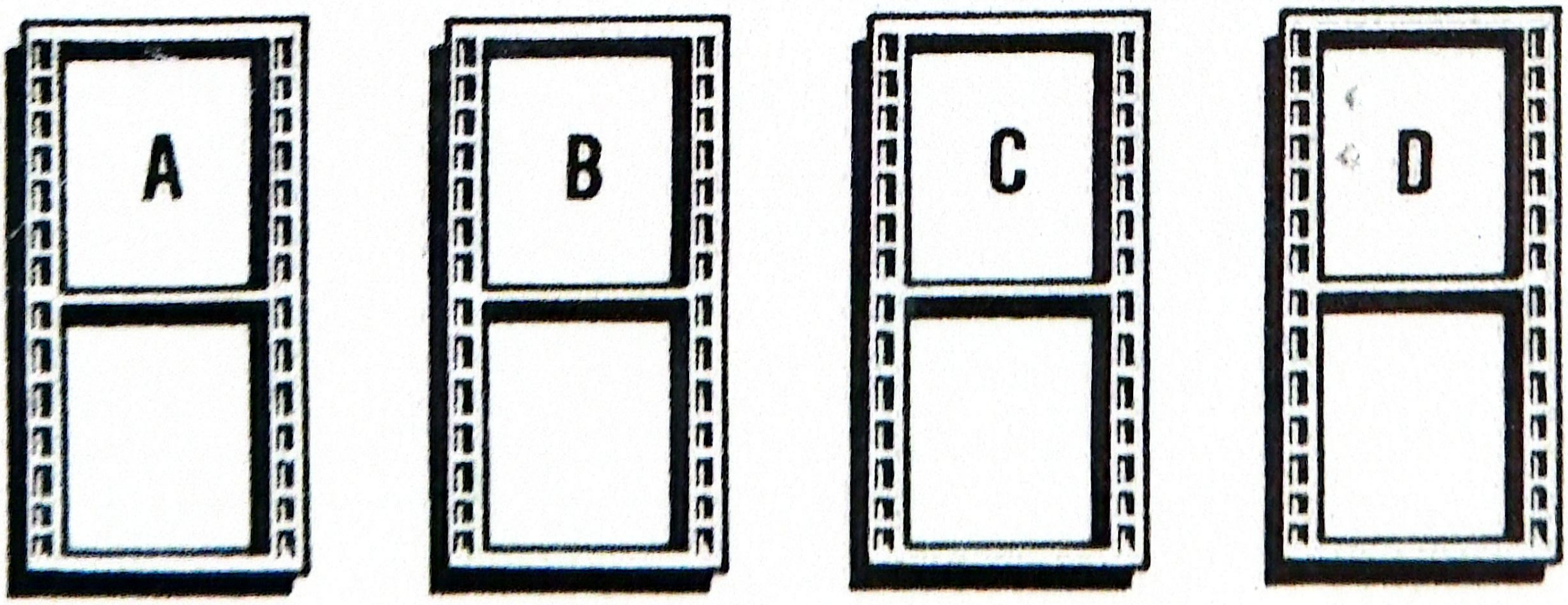
The card should be plugged into the back of the computer with the cable connection on the underside of the board. The cable should be plugged into your HoneySoft peripheral, leaving the expansion bus on the extender card free for a disc drive to be inserted. The cable should run underneath the disc interface box.

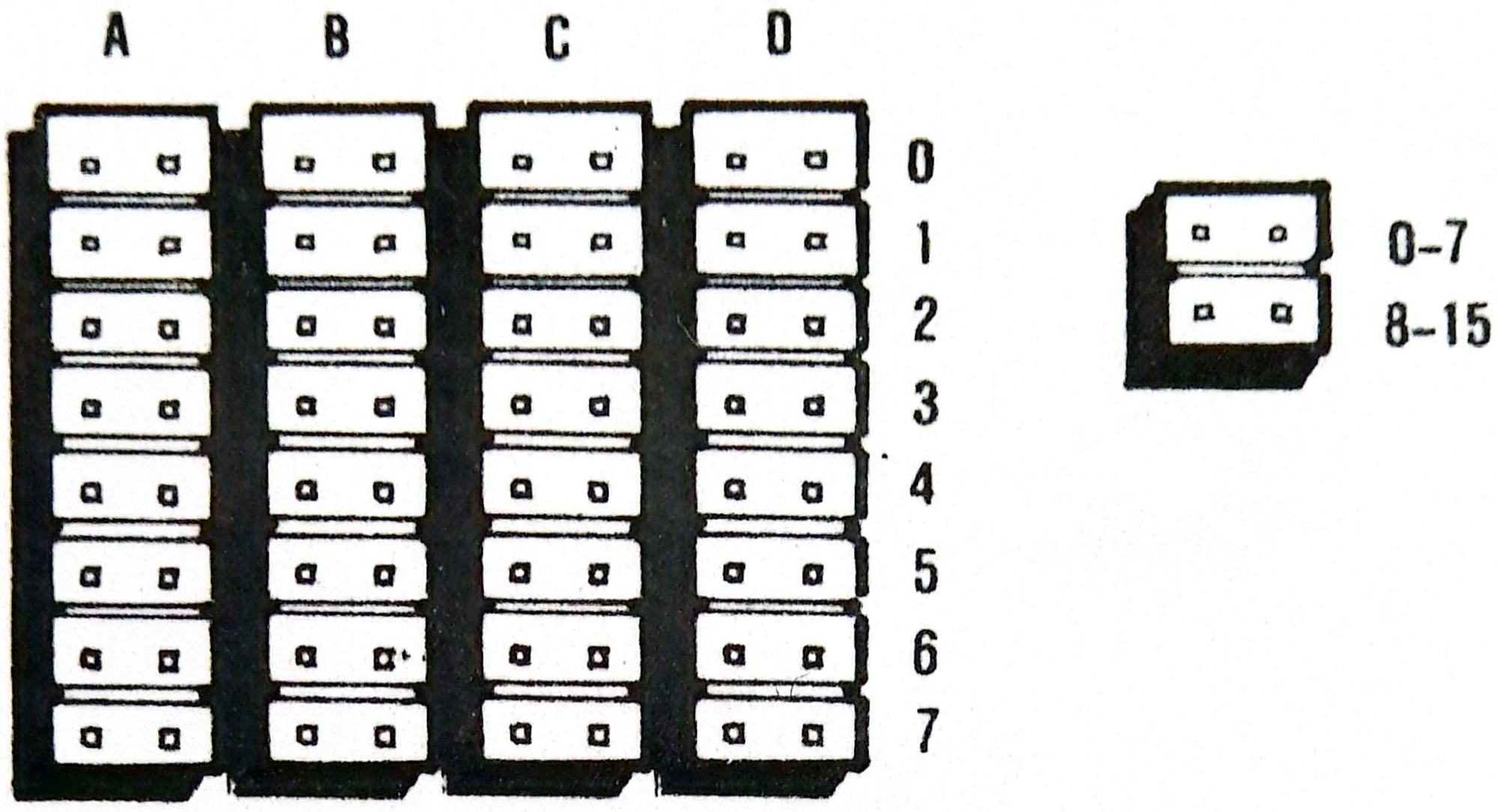
2. In Use

The HS-RX1 Expansion ROM board allows you to add up to four expansion ROMs to your AMSTRAD CPC464/664/6128; additional capacity can be achieved by chaining several HS-RX1 boards together if required.

The board supports both 8k and 16k ROMs, which may be mixed, although they must meet the 200ns access time recommended by AMSTRAD.

The Layout diagram below is provided as a reference for the links and sockets mentioned throughout this manual.





2-1: HS-RX1 ROM Expansion Card Layout

2.1. ROM Addressing

The HS-RX1 supports a ROM address range of either 0—7 or 8—15, which is dertermined by the user. Generally speaking, only the 0—7 range is useful on a CPC 464 whereas both may be used on a CPC664/6128.

To select a range of either 0—7 or 8—15 the links on the right hand side of the board are used; when the link is across the top two pins, range 0—7 is active and when across the bottom two 8—15 is active. (see Fig. 2-2).

0—7 selected 8—15 selected

2-2: Bank Selection

Having selected which of the two banks the board is going to operate in, each ROM socket can then be assigned a number from within this bank. This is achieved by making a link on the appropriate number for the corresponding socket.

The ROM addressing links are numbered down the board from 0—7, and across the board from left to right as A—D (as are the sockets). If the bank selected is between 8 and 15 then the link numbers effectively become 8—15 where they are labelled 0—7.

Fig. 2-3 shows an example of how the ROMs might be addressed. If the lower bank is selected then the sockets have the following addresses:

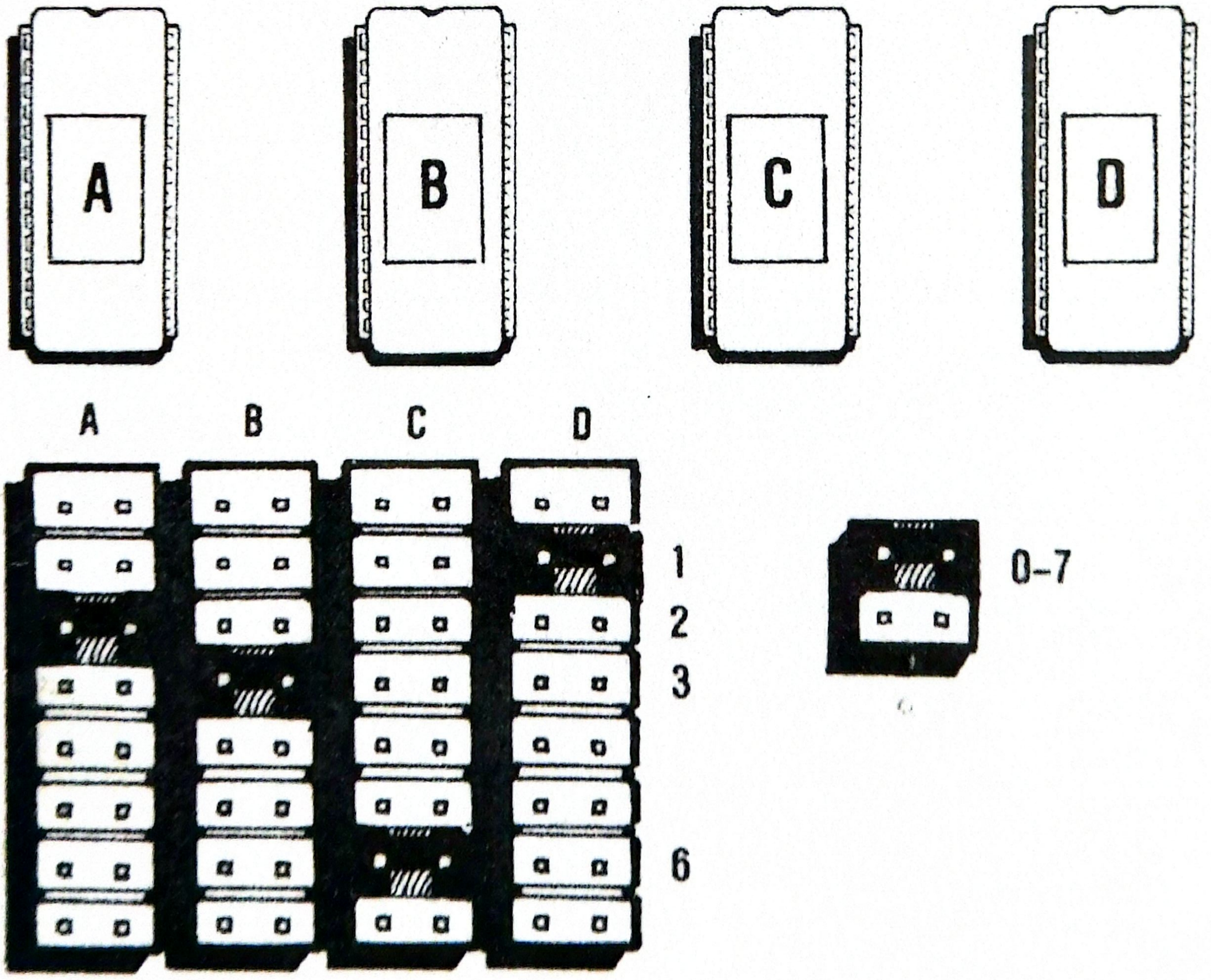
ROM A 2 ROM B 3 ROM C 6 ROM D 1

Note that the socket numbers do not have to be arranged in any order.

If the higher bank is selected then the socket addresses would be:

ROM A 10 ROM B 11 ROM C 14 ROM D 9

These addresses are simply calculated by adding 8 to the lower bank addresses given above.



2-3: Example ROM Addressing

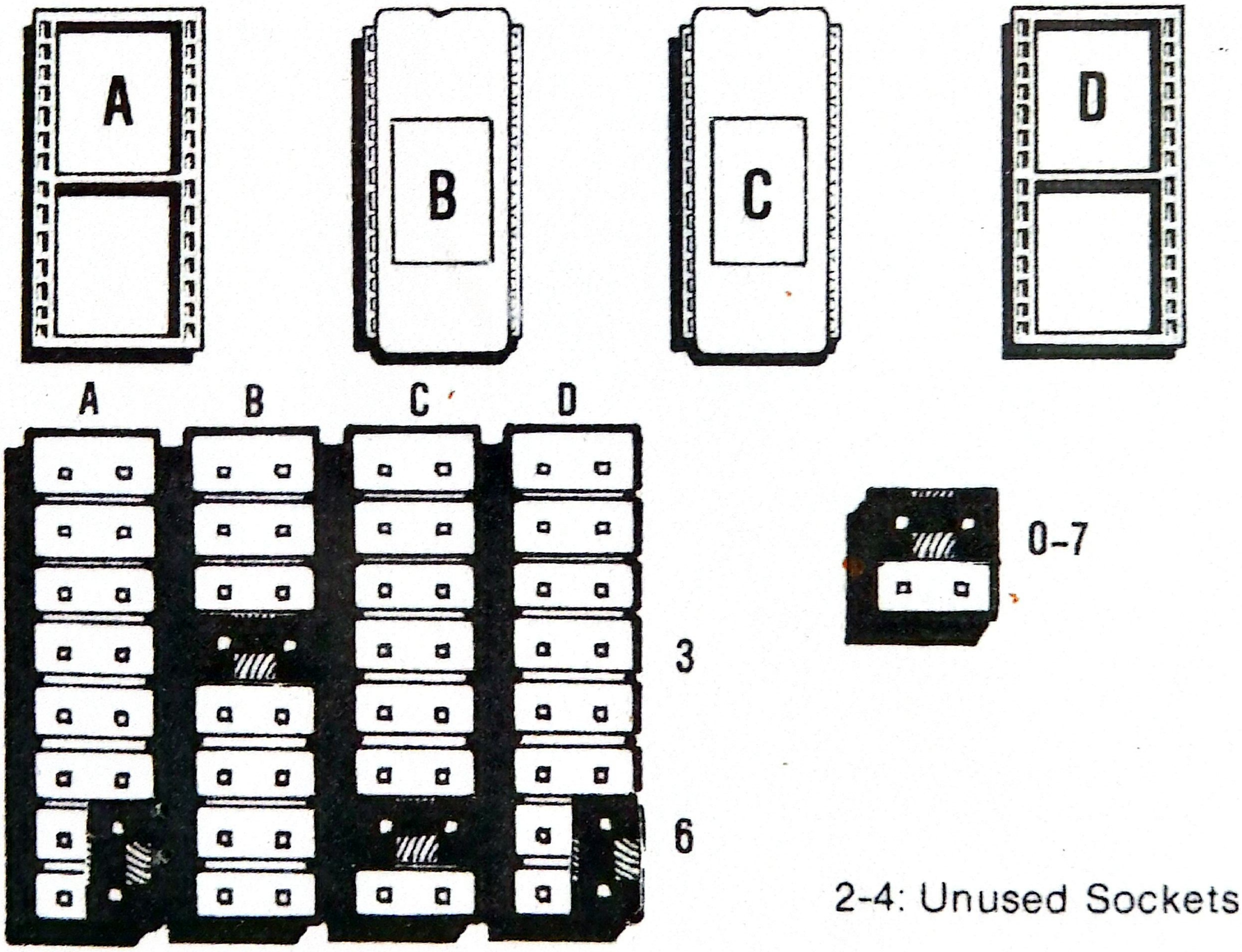
Not all sockets should be assigned a number, only those that are actually being used so that any conflict over addressing is avoided. Any unused links should be inserted on the right column of the corresponding socket connections for safe-keeping, as illustrated in Fig. 2-4.

The socket addressing (assuming the 0—7 bank) then becomes:

ROM A : unused ROM B 3 ROM C 6 ROM D unused

It is important that the unused links are placed on the RIGHT hand row of pins for the corresponding sockets.

In general, you will find that any expansion ROM that you purchase will have detailed instructions governing which number it should be addressed at. In this case, follow the instructions given bearing in mind the guidelines detailed above.



2-4: Unused Sockets

2.2. Inserting and Removing ROMs

When the socket numbers have been decided, the next stage is actually to insert the ROMs — particular care must be taken to avoid damaging them.

Firstly, a ROM should never be removed or inserted when power is applied to the board.

Each ROM has an orientation notch at one end; this should always be at the edge connector side of the HS-RX1 card.

When inserting a ROM, always make sure that all pins are correctly located in the socket; it is sometimes possible for one of the ROM 'legs' to splay out round the sides.

To remove a ROM, first ensure that the power to the board is off. Use a flat bladed instrument such as a screwdriver to lever the ROM out of the socket; lift each end slightly in turn rather than pulling out one end completely. This method will ensure that the ROM pins do not become damaged.

2.3. Notes

Care must be taken when selecting a ROM number for a socket, to avoid replicating one already in use. It is obvious which numbers are used on your HS-RX1 board, but it is important to bear in mind other peripherals. For example ROM 7 is used by the disc drive, ROM 5 is used by the ARNOR AD1 (MAXAM) card and ROM 0 is used by the internal BASIC ROM.

GUARANTEE

All HoneySoft products are guaranteed against manufacturing defects for a period of twelve months from the date of purchase. Should you find reason to complain then please return the peripheral. where it will either be repaired or replaced free of charge, if it is found to be faulty.

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